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Name	Kristi Hopkins
Department	Service Sales, North America
Telephone	412-897-4061
Email	Kristi.hopkins@siemensgamesa.com
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Comments of Siemens Gamesa Renewable Energy, Inc. on Rulemaking Establishing Electric Weatherization Standards

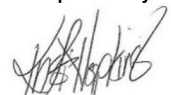
Dear Sirs and Madams,

Siemens Gamesa Renewable Energy, Inc. (SGRE) appreciates the opportunity to provide comments in this rulemaking process to assist the Public Utility Commission of Texas (PUCT) in its goal of improving reliability within the Electric Reliability Council of Texas (ERCOT) during extreme weather. SGRE manufactures and services wind turbines for power generators in ERCOT and other markets. SGRE respectfully submits these comments to provide a framework for understanding the limitations of the available technologies that allow wind turbines to operate in cold, icy conditions.

SGRE does not currently offer a retrofit hardware solution anywhere in the United States to heat turbine blades for the prevention of icing (anti-icing) or the elimination of ice buildup after it has formed (de-icing). However, SGRE does offer a system called "Operation with Ice" (OWI) that allows wind turbines to operate up to a point with ice on the blades. Additionally, OWI enables the wind turbine to reduce ice buildup by keeping the rotor of the wind turbine rotating thus minimizing further ice accumulation. The system reduces ice related shutdowns of the equipment and permits generation up to the point where the system can no longer operate with ice accumulation. OWI would have provided marginal benefits at the onset of the weather events in February 2021 but would not have significantly mitigated impacts due to the magnitude of the icing conditions. The system is available globally and in the US.

SGRE does not currently offer blade coatings that are designed to help minimize blade ice buildup under extreme weather conditions. While SGRE continues to study and evaluate anti-icing and de-icing technologies and blade coatings, none of the technologies under evaluation are expected to be commercially feasible as retrofits for existing turbines that have been equipped consistent with climates like Texas. Turbines equipped for extreme hot weather conditions utilize different materials incorporated into several major components than a turbine equipped for operations in extreme cold weather. We are available to provide further information regarding our wind turbines in ERCOT. We appreciate the opportunity to provide this input and respectfully request that the PUCT consider these comments when adopting rules regarding weatherization of generation equipment.

Respectfully submitted,



Kristi Hopkins
Head of Service Sales
Siemens Gamesa Renewable Energy, Inc.
North America Service

11950 Corporate Boulevard
Orlando, Florida 32836
United States

Tel: 407-736-2000
siemensgamesa.com